



Northamptonshire Archaeology

An archaeological watching brief at Swinderby
Sewage Treatment Works, Thurlby, Lincolnshire
April 2013



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QUALITY CONTROL

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OASIS REPORT FORM

PROJECT DETAILS		OASIS No 149283
Project name	Swinderby Sewage Treatment Works, Thurlby, Lincolnshire	
Short description	Northamptonshire Archaeology undertook an archaeological watching brief during the insertion of a new outfall pipe at Swinderby Sewage Treatment Works, Thurlby, Lincolnshire. The work exposed substantial fragments of an early prehistoric (Neolithic to early Bronze Age) pottery vessel. Two modern ditches were also observed. A few highly abraded sherds of pottery, dating to the Roman, medieval and post-medieval periods, were recovered from the topsoil. The topsoil also contained small pieces of metal debris, believed to derive from the crash of an Avro Manchester during the Second World War.	
Project type	Watching brief	
Site status	None	
Previous work	None	
Current Land use	Arable land / pipeline easement	
Future work	None expected	
Monument type/ period	Neolithic to early Bronze Modern ditches and an undated dump of fired clay	
Significant finds	Early prehistoric (Neolithic to early Bronze Age) pottery Debris from crashed aircraft (reportedly an Avro Manchester)	
PROJECT LOCATION		
County	Lincolnshire	
Site address	Swinderby Sewage Treatment Works,	
Study area	c0.6ha	
OS Easting & Northing	SK 90044 61913 to SK 90615 61830	
Height OD	c13m - 9m aOD	
PROJECT CREATORS		
Organisation	Northamptonshire Archaeology (NA)	
Project brief originator	Louise Jennings, Lincolnshire County Council Historic Environment Team	
Project design originator	Jim Brown, Northamptonshire Archaeology	
Director/Supervisor	John Walford and Anne Foard-Colby, NA	
Project Manager	Jim Brown, NA	
Sponsor or funding body	Anglian Water Services	
PROJECT DATE		
Start date	2 April 2013	
End date	2 May 2013	
ARCHIVES	Location	Content
Physical	LCNCC 2013:10	Pottery, flint and metal objects
Paper		Evaluation pro forma sheets, colour slides, black and white contact prints, digital photographs.
Digital		Report text and figures
BIBLIOGRAPHY		
Title	An archaeological watching brief at Swinderby Sewage Treatment Works, Thurlby, Lincolnshire	
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AN ARCHAEOLOGICAL WATCHING BRIEF AT SWINDERBY SEWAGE TREATMENT WORKS, THURLBY, LINCOLNSHIRE

APRIL 2013

Abstract

Northamptonshire Archaeology undertook an archaeological watching brief during the insertion of a new outfall pipe at Swinderby Sewage Treatment Works, Thurlby, Lincolnshire. The work exposed substantial fragments of an early prehistoric (Neolithic to early Bronze Age) pottery vessel. Two modern ditches were also observed. A few highly abraded sherds of pottery, dating to the Roman, medieval and post-medieval periods, were recovered from the topsoil. The topsoil also contained small pieces of metal debris, believed to derive from the crash of an Avro Manchester during the Second World War.

1 INTRODUCTION

Northamptonshire Archaeology was commissioned by Anglian Water to undertake an archaeological watching brief during the insertion of a new outfall pipe at Swinderby Sewage Works, Lincolnshire. The pipe was to run for 586m, commencing in the south-eastern corner of the treatment works, at NGR SK 90044 61913, and discharging into a dyke at SK 90615 61830 (Fig 1). The fieldwork was undertaken from 2 April to 5 April 2013.

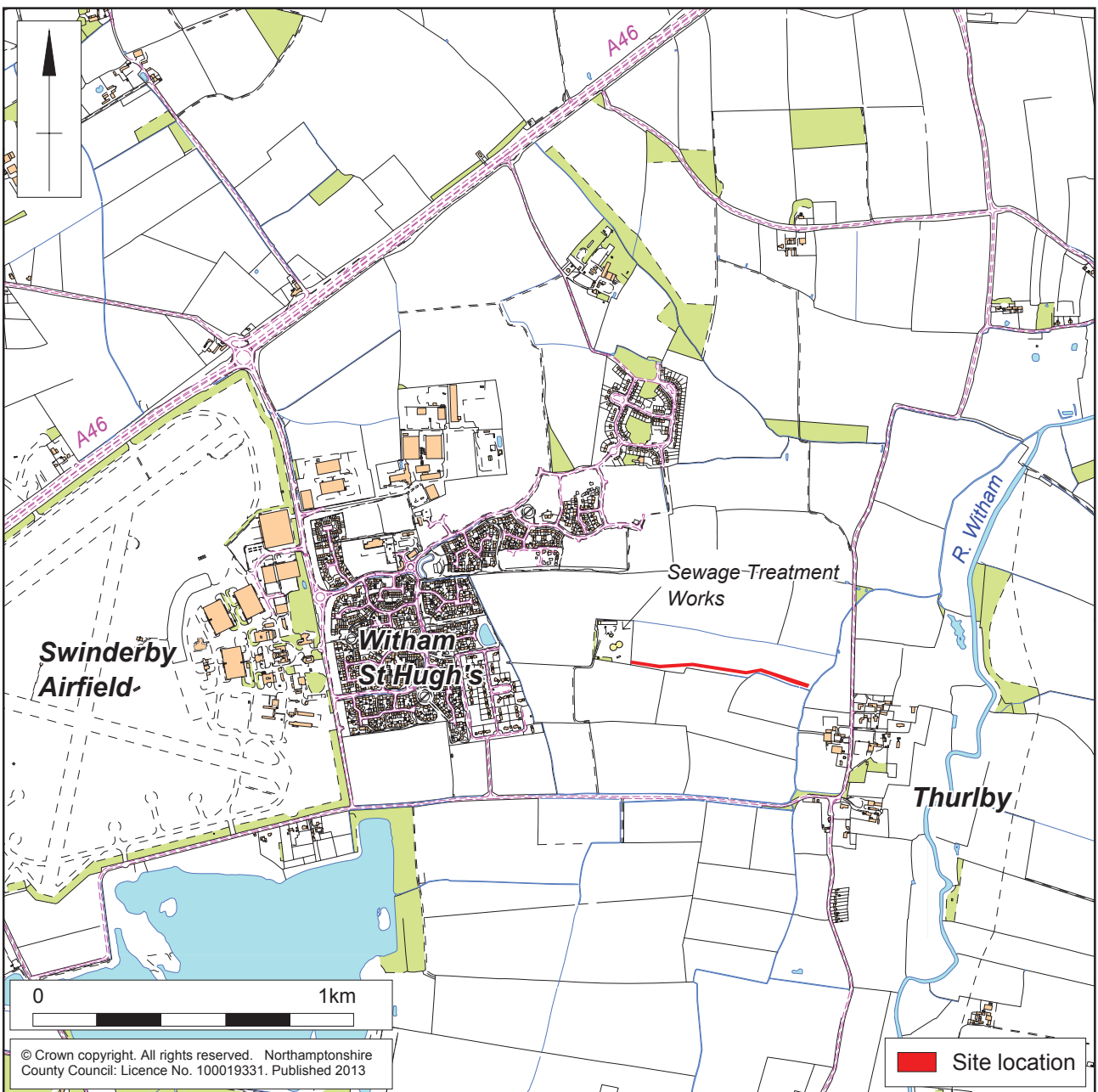
The nature of the archaeological work was determined by a brief issued by the Lincolnshire County Council Historic Environment Team (LCC 2012) and a Written Scheme of Investigation (WSI) produced by Northamptonshire Archaeology (Brown 2013). Its purpose was to establish the presence or absence of archaeological remains within the development site, and to mitigate the impact of development upon any remains that may have been discovered.

2 BACKGROUND

2.1 Location, topography and geology

Swinderby Sewage Treatment Works is located approximately 3km south-east of the village of Swinderby, within the civil parish of Thurlby. It lies c300m to the west of the former RAF Swinderby, which has been partially redeveloped as the new village of Witham St Hugh's (Fig 1).

The sewage treatment works stands on the western flank of the Witham valley at about 13m above Ordnance Datum. To the east, along the route of the pipeline, the ground drops gradually to about 9m above Ordnance Datum. The geology of the pipeline corridor is mapped as mudstones and limestones of the Lower Lias, with a narrow band of alluvium lying alongside the dyke into which the pipe discharges (BGS 2013).



Scale 1:20,000

Site location Fig 1

2.2 Archaeological background

A search of the Lincolnshire Historic Environment Record (HER) has been undertaken for an area extending 500m in all directions from the pipeline route. The results of this search are summarised in the table below, and the monument locations are presented in Figure 2.

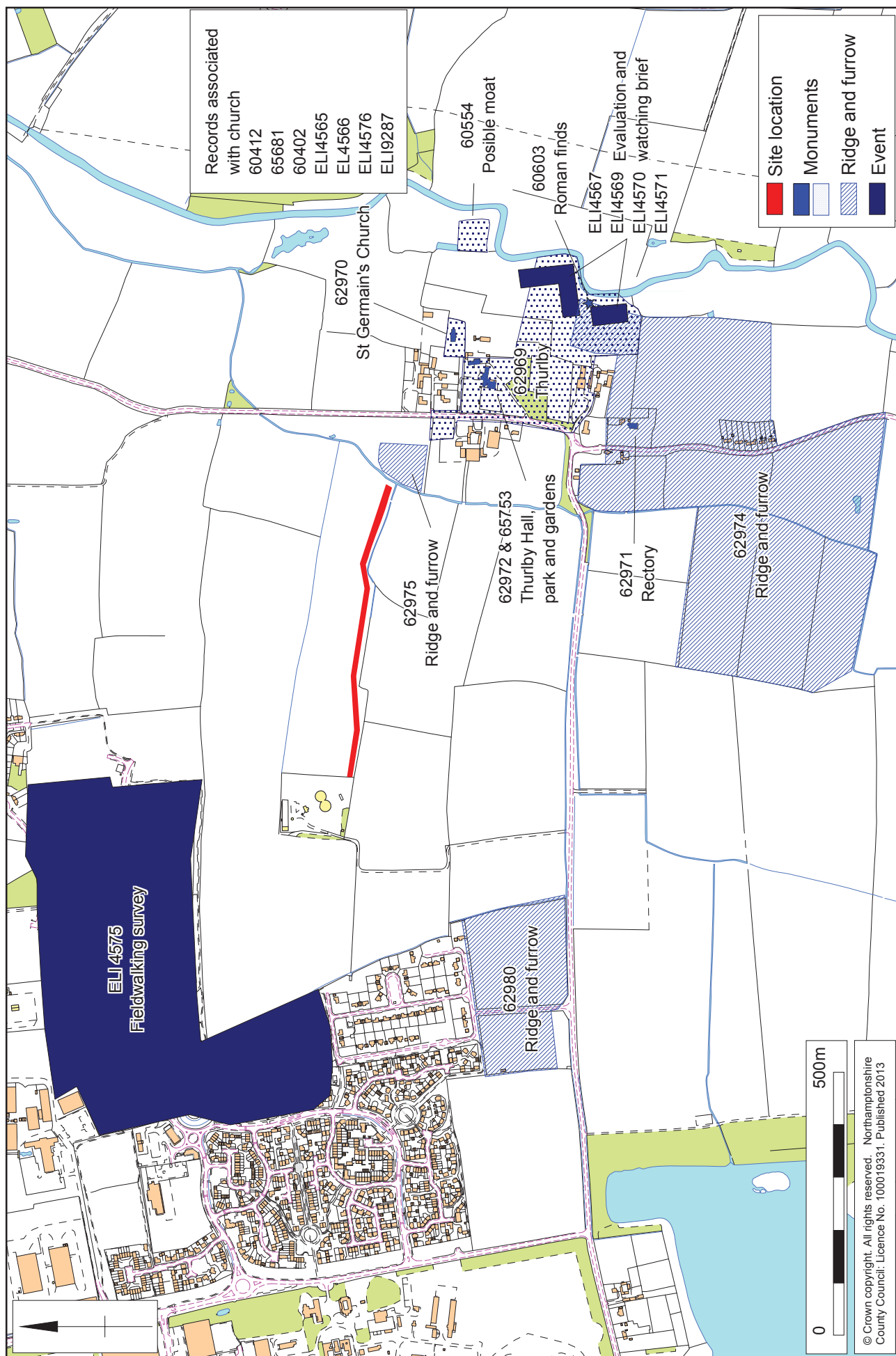
Table 1: Inventory of Historic Environment Record data

Period	HER Ref.	Event or monument
Roman	60603	pottery scatter, near New South Farm, Thurlby
Saxon	60412	grave cover, St Germain's Churchyard, Thurlby
	62969	settlement, Thurlby, first documented by Domesday Book
	65681	ditches & pottery, St Germain's Churchyard, Thurlby
medieval	60402	cross, St Germain's Churchyard, Thurlby
	60554	possible moat adjacent to the river, east of church, Thurlby
	62970	church and yard, St Germain's Church, Thurlby
	62974	open field system, Thurlby
	62975	ridge & furrow, north-west of Thurlby
	62980	ridge & furrow, west of Thurlby
post-medieval	62971	Rectory (c 1860)
	62972	Thurlby Hall (c 1703)
	65753	park & gardens, Thurlby Hall
recent work	ELI4565	St Germain's Churchyard, 1964, EH Inspector
	ELI4566	St Germain's Churchyard, 1994, Assess national importance
	ELI4567	magnetometer survey, Thurlby Wetlands, no features
	ELI4569	test pits, Thurlby Wetlands, no features/deposits
	ELI4570	watching brief, Thurlby Wetlands, no features/deposits
	ELI4571	fieldwalking, Thurlby Wetlands, no significant finds
	ELI4575	fieldwalking, Swinderby Airfield, no significant finds
	ELI4576	St Germain's Churchyard, 1967-1983, building listing
	ELI4577	Rectory, Main St, Thurlby, 1983, building listing
	ELI4578	Thurlby Hall, 1983, building listing
	ELI9287	watching brief, St Germain's Church, Anglo-Saxon ditches

The records predominantly relate to Saxon, medieval and post-medieval features within the village of Thurlby. They include the medieval parish church, St Germain's (62970), a churchyard cross (60402), a possible moated site (60554), medieval ridge and furrow cultivation, and other earthwork features (62969). Of particular note is the late Saxon grave cover preserved at St Germain's Church (60412), and the ditches with early to middle Saxon pottery found during groundworks in the churchyard (65681). These remains suggest that the village was already long established by the time of the Domesday survey, when it first appears in the historical record.

A programme of archaeological works was carried out at Thurlby in the mid 1990s, during the creation of wetland habitat alongside the river Witham (ELI4567, 4569, 4570, 4571). A magnetometer survey, test pitting and a watching brief revealed little of note, despite the previous discovery of Roman artefacts in the vicinity (60603).

A fieldwalking survey was conducted on the eastern part of the former RAF Swinderby in 1997, but revealed nothing of significance (ELI4575). Other works on the western side of the airfield (beyond the limit of the present HER search), tested a number of cropmark features and showed that they related to ditches of indeterminate date (CA 2006).



Scale 1:10,000 (A4)

Historic Environment Record data Fig 2

3 OBJECTIVES AND METHODOLOGY

3.1 Objectives

The objectives of the archaeological observation were specified in the WSI (NA 2013), and were as follows:

- Establish the date, nature and extent of any activity or occupation on the development site;
- Recover artefacts to assist in the development of type series within the region;
- Recover palaeo-environmental remains, where present, to determine local environmental conditions.

3.2 Methodology

The works were conducted in accordance with the WSI (NA 2013), *Standards and guidance for an archaeological watching brief* (IfA 2008) and the *Code of Conduct* of the Institute for Archaeologists (IfA 2010).

A working corridor approximately 10m wide, was stripped of topsoil under archaeological supervision. The stripping was undertaken with a 360° mechanical excavator fitted with a toothless ditching bucket, and the spoil was stacked immediately to the side. Where potentially significant features were observed, they were investigated by hand excavation to determine their date and character.

Following the stripping of the topsoil, it was clear that natural strata had been exposed along the length of the corridor. Therefore, the cutting of the pipe trench into these deposits was not monitored.

The location of significant archaeological features was recorded by measurement to fixed points set out by the principal contractors. Recording followed standard Northamptonshire Archaeology procedures (NA 2011). All archaeological features were given a unique context number. Deposits were described on *pro-forma* context sheets to include details of the context, its relationships, interpretation and a checklist of associated finds. Finds were collected from the individual deposits and appropriately packed and stored in stable conditions, by context.

A photographic record was made on 35mm monochrome and colour film, with supporting digital photographs. The field data has been compiled into a site archive with appropriate cross-referencing.

The project archive will be deposited with 'The Collection' in Lincoln under the accession number LCNCC 2013:10. A copy of the report will be deposited through OASIS and will be available online through the Archaeology Data Service.

4 THE EXCAVATED EVIDENCE

4.1 General stratigraphy

The topsoil on the site was around 0.30m deep and generally consisted of friable mid brown sandy loam or sandy clay loam. It contained a few widely scattered sherds of abraded Roman and medieval pottery, and a few modern fragments of ceramic building material (the latter were not retained). At the far end of the pipeline corridor, there was a pronounced change in the character of the topsoil, with the loam giving way to stiff greyish-brown silty clay which may have been partly alluvial in origin.

The topsoil lay directly over natural deposits which varied in character along the length of the pipeline corridor. At the western end, they comprised a stiff clay, capped in places by a discontinuous lens of rubbly and fossiliferous limestone. The upper part of the clay was weathered and yellowish or greyish in colour, but a deeper exposure showed it to be dark blue when fresh. At about 200m from the western end of the pipe corridor, the natural clay was replaced by an orange-yellow sandy silt with localised clayey patches. Two shallow test pits were machine-excavated into this deposit to confirm that it was sterile natural. In the eastern pit, which was located close to the dyke at the eastern end of the field, the freshly exposed sediment had a light bluish-grey colour suggestive of gleying.

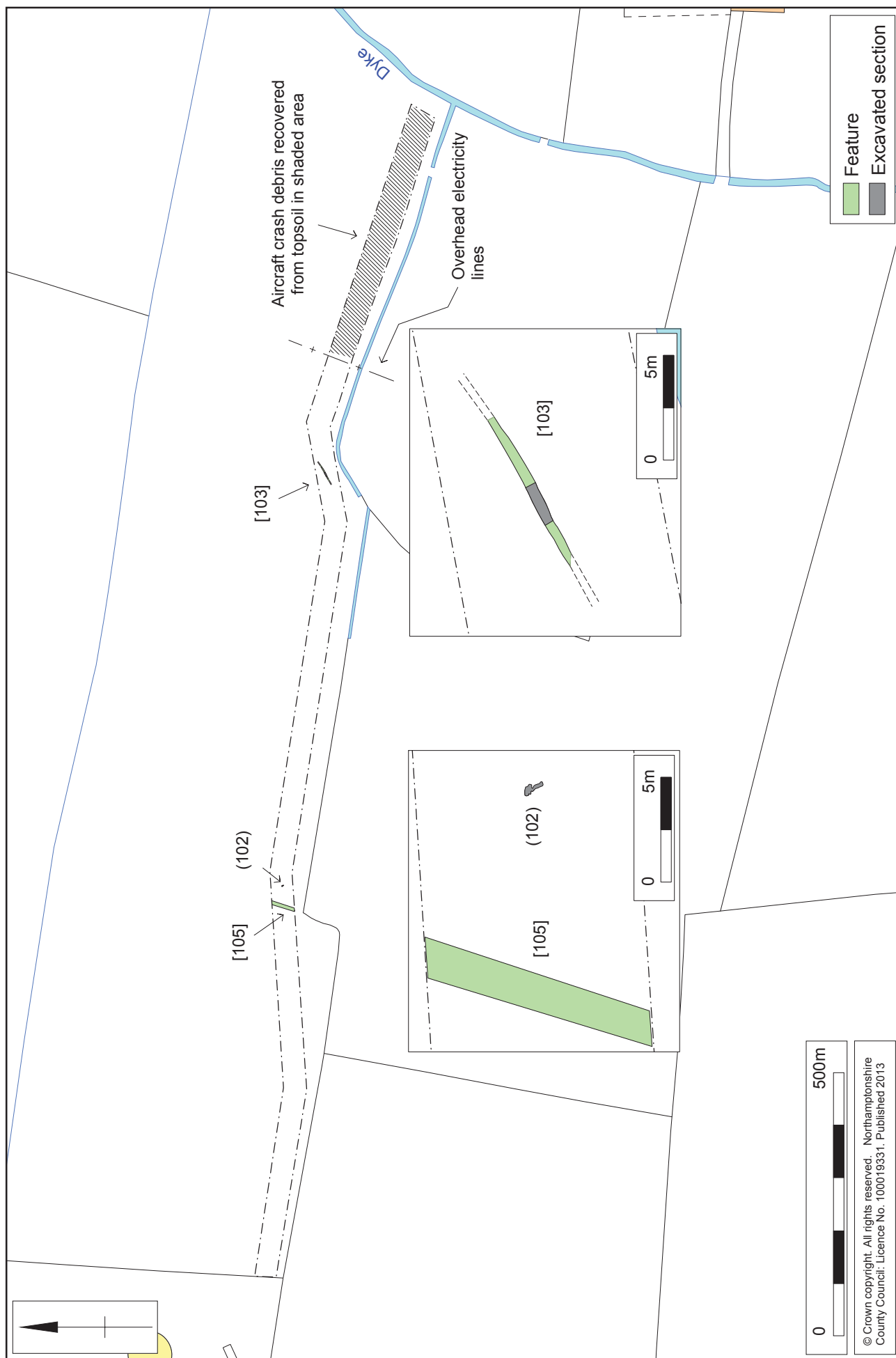
The southern edge of the pipeline corridor was disturbed by a backfilled pipe trench, containing the original outfall pipe. Modern field drains were also apparent in the stripped corridor.

4.2 Archaeological features

Three archaeological features were observed during the watching brief, as detailed below and depicted in Figures 3 to 6.

Context (102) comprised a group of sherds of pottery lying immediately beneath the topsoil (Figs 3-5). The sherds were clustered densely together, and were slightly pressed into the surface of the underlying natural clay. There was no evidence for an associated cut, and the fragments were lying horizontally, as if crushed flat. No other artefacts were recovered from the context, but an unstratified fragment of a flint blade was found in close proximity.

Once cleaned, the pottery was identified as the remains of a vessel of either Neolithic or early Bronze Age date.



Scale 1:2,500 (A4)

Archaeological features Fig 3

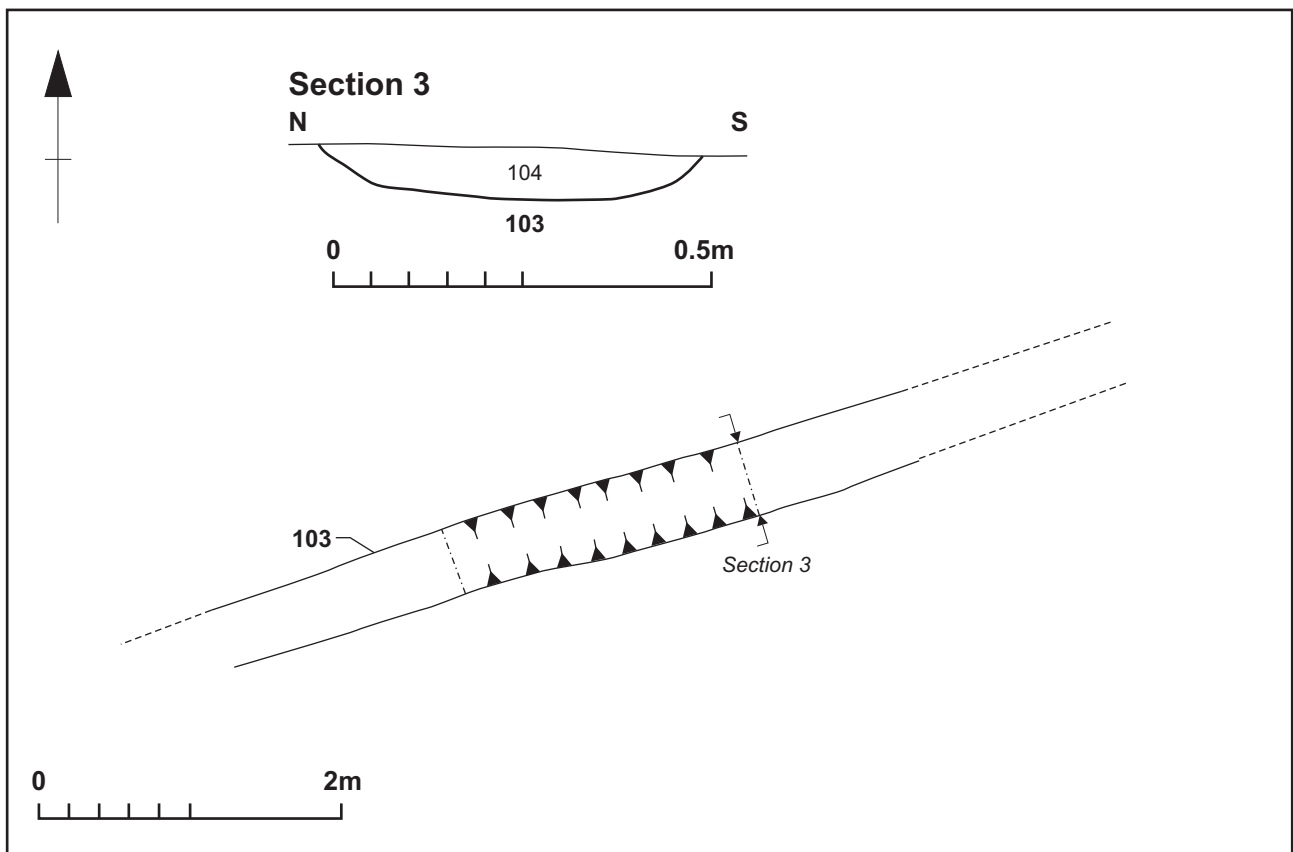
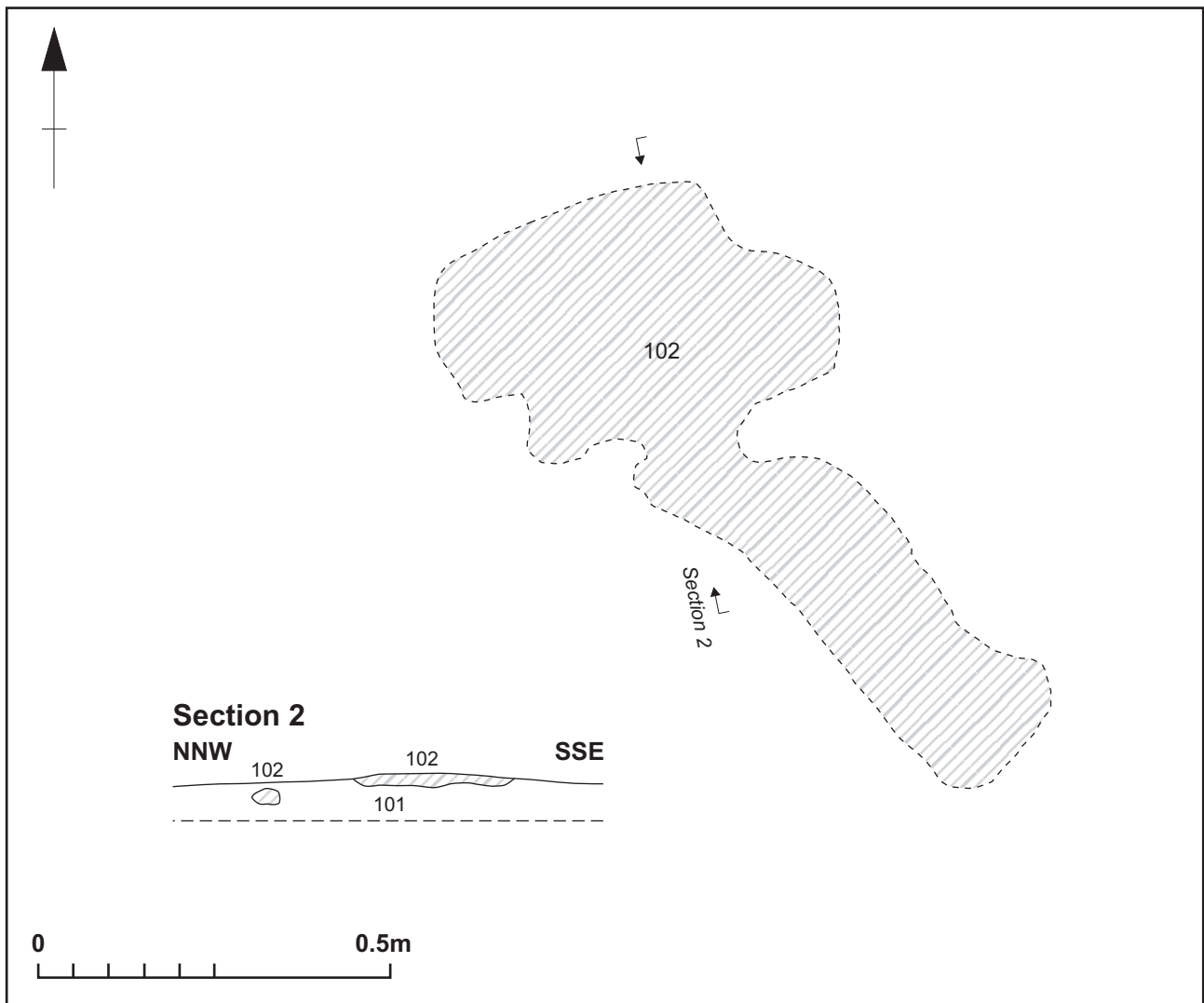
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Context (102), crushed prehistoric pottery, looking south-west Fig 4

Gully [103] was a shallow and flat-based linear feature which measured c0.50m wide by 0.07m deep and crossed the pipeline corridor from south-west to north-east. The edges and base of the gully were well defined, although penetrated by a number of small root holes. The fill of the gully (104) comprised friable sandy silt with a patchy mid to dark grey colouration and contained one sherd of white-glazed earthenware.

Ditch [105] measured approximately 2m wide and crossed the pipeline corridor on a north to south alignment. The fill (106) was a dark grey sandy silt, within which were pieces of decaying timber or tree roots, sparse fragments of brick and slag, and a substantial piece of plastic-coated line. The ditch was evidently a very recent feature, and its location and alignment clearly matched with a field boundary depicted on recent editions of the Ordnance Survey.



Plans and sections of context (102) and gully [103] Fig 5



Gully [103], looking north-west Fig 6

4.3 Aircraft remains

A metal detector search of the topsoil and spoilheaps recovered a scatter of twisted and crumpled fragments of aluminium alloy, two bullets, and two distorted copper alloy objects. These items all came from the eastern end of the pipe corridor, between the overhead electricity wires and the dyke (Fig 3).

When the discovery of these items was mentioned to the farmer, he reported that an Avro Manchester had crashed nearby during the Second World War and recalled that substantial parts of this aircraft were dug up in his youth (Spray pers com).

5 FINDS

5.1 Worked flint

A fragment of a heavily patinated flint blade was found in loose spoil close to pottery deposit (102). It is perhaps of early Neolithic date, and it bears slight edge damage, consistent with having been utilised (Wolfram-Murray pers com).

5.2 Prehistoric pottery by Andy Chapman

A total of 90 sherds of pottery, weighing 774g, were found as a compact surface group, context (102) (Fig 4). The sherds appear to have come from a single vessel, with a brown core, containing dense large pieces of crushed shell, and orange-brown surfaces. Much of the shell has leached, leaving voids in the body and large pits in the surfaces.

The majority of the sherds are plain body sherds, around 10mm thick, but part of the rim survives. This comprises a thick squared rim, 22mm thick, over a deep concave neck, 10mm thick (Fig 7). The surface of the rim has been damaged, but there may have been oblique incised decoration on the upper surface. There are also a few sherds, probably from the shoulder of the vessel, decorated with broad, boldly incised regular oblique lines, in one instance bordered by a horizontal line, suggesting that the lines ran in opposing directions, perhaps forming a lozenge pattern (Fig 7).

The date of this vessel is difficult to determine, but the thickened rim over a deep concave neck and the incised decoration would be appropriate for vessels ranging from the later Neolithic impressed ware tradition (which includes Peterborough ware) through to the larger urn and bowl forms of the early Bronze Age.



Rim and decorated body sherds from pot scatter (102) (Scale 20mm) Fig 7

5.3 Roman, medieval and post-medieval pottery identifications by Tora Hylton

Five sherds of pottery were recovered from the topsoil during the watching brief. Two of these were abraded Roman sherds; a greyware base-sherd with a sandy fabric and a rim-sherd in a grog tempered fabric. A further two were abraded sherds of medieval earthenware, both bearing slight traces of green glaze. The fifth sherd was post-medieval sherd of red earthenware with a mottled greenish brown glaze. Gully [103] produced a single sherd of 19th to 20th century white-glazed earthenware.

5.4 Aircraft remains

The pieces of crash debris consisted of eight pieces of aluminium alloy skinning, two small fragments of magnesium alloy, two copper alloy fittings (one possibly a split-ring from a motor) and one small object which appears to be an adjustable gauge or similar item (Fig 8). Many of the skin fragments bore traces of green paint, and four of them had riveted edges.

Two bullets were found in the same general location as the crash debris. One was a 0.303 calibre bullet, which showed signs of impact damage, but bore no trace of rifling marks. The other was a smaller lead bullet, perhaps from a pistol, with a diameter of approximately 7mm.



Possible aircraft gauge Fig 8

6 DISCUSSION

The fieldwork has recovered the remains of a single pottery vessel of Neolithic or early Bronze Age date, possibly associated with an early Neolithic flint blade. This discovery is of intrinsic interest, but there is little information which would give it a meaningful context. No contemporary features were found (perhaps due to the limited width of the investigation area), and the Lincolnshire HER does not record any finds of similar date from the vicinity. It is unclear whether the pot represents an isolated loss, a 'ritual' deposit, or an item of domestic waste.

A small assemblage of abraded pottery, comprising two Roman sherds, two medieval sherds and one post-medieval sherd, was recovered from the topsoil across the site. This material was probably introduced onto the land by manuring, and is therefore of limited significance.

Some fragments of aircraft debris were recovered from the topsoil at the eastern end of the site. They are relatively small pieces, which could have been flung a considerable distance from the point of impact. There was no evidence for more substantial remains or an impact crater within the present area of investigation.

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